

# Tree and Site Inspection

## Comprehensive tree and site inspection prior to set-up

- Identify hazards and obstacles
- Plan set-up and work



# Site Inspection

- Holes, drop-offs, or unstable objects on ground
- Underground voids or structures
  - Septic systems, irrigation, wells, lava tubes, etc.
- Side or overhead obstacles or obstructions to bucket/platform or boom extension or maneuvering
- Overhead electric lines
- Unauthorized vehicles and personnel
- Location and attention of all workers during all operations



# Lift/Site Set-up

- Firm
  - will not permit lift to sink or overturn
- Reasonably level ground
  - Within maximum slope defined by manufacturer - generally less than 5 degrees
- Free of obstacles and obstructions
- Free of safety obstacles and obstructions





# Lift/Site Set-up

## Position lift to:

- Safely and efficiently access work stations
- Minimize reach to horizontal extensions



# Lift/Site Set-up

- Set parking brake
- Chock wheels
  - Opposite sides of vehicle and alternate sides of tires



# Lift/Site Set-up

## Warning signals installed/activated

- Lights, flashers, signs, cones and barriers
- Conformance to local jurisdiction





# Lift/Site Set-up

## Outriggers extended and set

- Prior to extending outrigger on opposite side of equipment
  - Operator visually check and call out warning to ensure no personnel within landing zone of outrigger
  - Command and response
- Soft ground or sites where outriggers may damage surface
  - Outrigger pads installed
- Downhill first



# Lift/Site Set-up

## Emergency rescue kit

- Safe location
- Clear of vehicle
- Easily accessible





# Lift/Site Set-up

## Final check conducted

- Vehicle stable and in good working order
- Site safe.



# Work Plan/Job Brief

Plan and communicate all safety rules for each job site

- Work tasks and progression
- Potential hazards and their mitigation
- Emergency response plan
- Each worker's tasks, role, responsibility and positioning
- Command and response system
- All required equipment present and good working order.



# Safe Operations

Do not operate machinery if:

- Tired
- Using drugs or alcohol
- Do not drive vehicle with the platform elevated





# Safe Operations

## Minimize electrical contacts risk

- All employees attend Electrical Hazard Awareness Program in conformance with OSHA and ANSI requirements
- Worksite inspection
- Only qualified electrical line clearance workers can work near energized electrical equipment
- Maintain distance of  $> 10$  feet from all energized conductors
  - Clearance includes person, aerial lift and boom, all tools and equipment, and all parts of a tree
  - If minimum approach distance cannot be maintained at all times, contact owner of electrical lines to coordinate safe work clearance



# Safe Operations

## Wear fall protection equipment

- Lanyard attached to manufacturer's attachment point
  - Boom or bucket/platform
- Do not connect lanyard to adjacent equipment, poles, trees or structures



# Safe Operations

Keep both feet firmly on floor of the platform

- Do not sit or climb on rail
- Do not lean far out
- Do not use ladders, blocks or other elevators inside platform to increase reach





# Safe Operations

Apply appropriate arboriculture practices to prevent uncontrolled tree or branch falls onto equipment

- No spurs worn in bucket



# Safe Operations

## Loads lift only as approved by manufacturer

- Do not permit > approved number of persons in platform
- Use only manufacturer's approved lift device
  - Do not tie loads to platform or boom
- Ensure loads are balanced
- Consider weight of operator



# Safe Operations

- Do not operate lift during periods of high winds
- Never operate a lift alone
  - At least 2 qualified operators always present during lift operations





# Safe Operations

- Face direction platform is moving
- Operate controls smoothly



# Safe Operations

Continuously inspect for potential hazards and re-evaluate safe operation

- Be aware of location of boom and platform in relation to other structures, objects and hazards
- Communicate any changes in work plan to all workers





# Safe Operations

Recognize and avoid key crush points whenever lift is in operation

- Focused on location of all persons relevant to lift movement
- Command and response prior to lift movement





# Safe Operations

Workers shall not operate the lower controls without the direct knowledge and express permission of the worker in the bucket/platform, unless an emergency exists



# Safe Operations

**Cease operation if any part of lift breaks or malfunctions**

- **Qualified repair technician must conduct repairs and tests before continuing operations.**



# Ladder Inspection

## Avoid failure of parts and falls

- Rivets and bolts firm and in place
- Rungs and rails sound and free of defects
- Non-skid feet secure and sound.





# Ladder Safety Operation

## Person or ladder fall hazard

- Tired or dizzy, do not climb ladder
- Do not use ladder in high winds or storms
- Wear slip-resistant shoes
- Select proper size ladder for job
  - Climber should not stand on top rung or step



# Ladder Safety Operation

- Duty Rating of ladder > total weight of climber, tools, supplies, and other objects placed upon ladder
- Place ladder on firm level ground
- Avoid slippery condition base or top support points
- Only one person on ladder
- Read safety information labels
- Never jump on/off or slide down ladder





# Ladder Safety Operation

- Must be secured while working or before leaving ladder
- Utilize three points-of-contact
- Climb one rung/step at a time
- Keep center of belt buckle between rails.





# Chippers

Chippers process wood into compact chips

- Reduce large volume of wood into small area
- Easy to transport and dispose



# Chipper Safety

## Proper training and practices critical

- Daily inspection and maintenance
- Proper towing procedures
- Starting and stopping procedures
- Safe feeding of wood



# Chipper Accidents

- Broken bones from wood strikes
- Lacerations/contusions from moving branch strikes
- Eye injuries
- Body parts processed





# Chipper Safety

## Always wear appropriate PPE

- Protective helmet
- Eye protection
- Hearing protection
- Properly fitting clothing
- Work boots



# Chipper Safety

## Do not wear:

- Loose clothing
- Jewelry
- Gauntlet-type gloves
- Climbing saddles
- Harnesses/lanyards
- Back support belts



# Chipper Safety

## Feeding wood into chipper

- Clear tripping hazards from near chipper
- No part of operator's body should ever enter chute area
- Avoid placing rocks, metal or other debris into chipper with wood





# Chipper Safety

## When feeding material

- Large (butt) end goes in first
- Feed from side of apron
- Move quickly to side after throwing material into chute
- Small wood can be pushed in with a larger branches
- Small branches remaining in chute will be pulled in by next branch



# Chipper Safety

## When feeding material

- No foreign material (stones, cabling hardware, nails, etc.)
- Suspect wood should be hauled away

## Manage ropes to avoid entanglement/uptake into chipper





# Chipper Safety

Do Not conduct chipper maintenance unless it is off & locked

- Key off and out of ignition
- Cutter wheel completely stopped
- Lock pins installed.





# Use only qualified personnel and Follow all manufacturer's instructions



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